STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐
(highlight changes)

APPLICATION FOR PERMIT TO DRILL

5. MINERAL LEASE NO:	6. SURFACE:
ML-46911	State

1A. TYPE OF WORK: DRILL ☑ REENTER ☐ DEEPEN ☐

7. IF INDIAN, ALLOTTEE OR TRIBE NAME:

B. TYPE OF WELL: OIL ☐ GAS ☑ OTHER _____ SINGLE ZONE ☐ MULTIPLE ZONE ☑

8. UNIT or CA AGREEMENT NAME:

2. NAME OF OPERATOR:
Houston Exploration Company

9. WELL NAME and NUMBER:
East Bench 6-16-11-22

3. ADDRESS OF OPERATOR:
1100 Louisiana, Suite 20 Houston TX 77002

PHONE NUMBER:
(713) 830-6800

10. FIELD AND POOL, OR WILDCAT:
Undesignated

4. LOCATION OF WELL (FOOTAGES)

AT SURFACE: 1887' FNL & 2138' FWL

AT PROPOSED PRODUCING ZONE: same as above

39.862681
-109.461142

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
SENW 16 11S 22E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE:
57.0 miles south of Vernal, UT

12. COUNTY:
Uintah

13. STATE:
UTAH

15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET)	16. NUMBER OF ACRES IN LEASE:	17. NUMBER OF ACRES ASSIGNED TO THIS WELL:
1887'	640	40

18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET)	19. PROPOSED DEPTH:	20. BOND DESCRIPTION:
1,300'	8,425	104155044

21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.):	22. APPROXIMATE DATE WORK WILL START:	23. ESTIMATED DURATION:
5,782'	9/15/2005	30 Days

24. **PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT	SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT			
11"	8 5/8" J-55 36#	2,000	PREMIUM LITE II	250 SKS	3.38 CF	11.0 PPG
			CLASS "G"	329 SKS	1.2 CF	15.6 PPG
			Calcium Chloride	200 SKS	1.10 CF	15.6 PPG
7 7/8"	4 1/2" N-80 11.6#	8,000	PREMIUM LITE II	200 SKS	3.3 CF	11.0 PPG
			CLASS "G"	400 SKS	1.56 CF	14.3 PPG

25. **ATTACHMENTS**

CONFIDENTIAL

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER

☑ COMPLETE DRILLING PLAN

☑ EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER

☐ FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

NAME (PLEASE PRINT) Willam A. Ryan TITLE Agent

SIGNATURE William A Ryan DATE 8/30/2005

(This space for State use only)

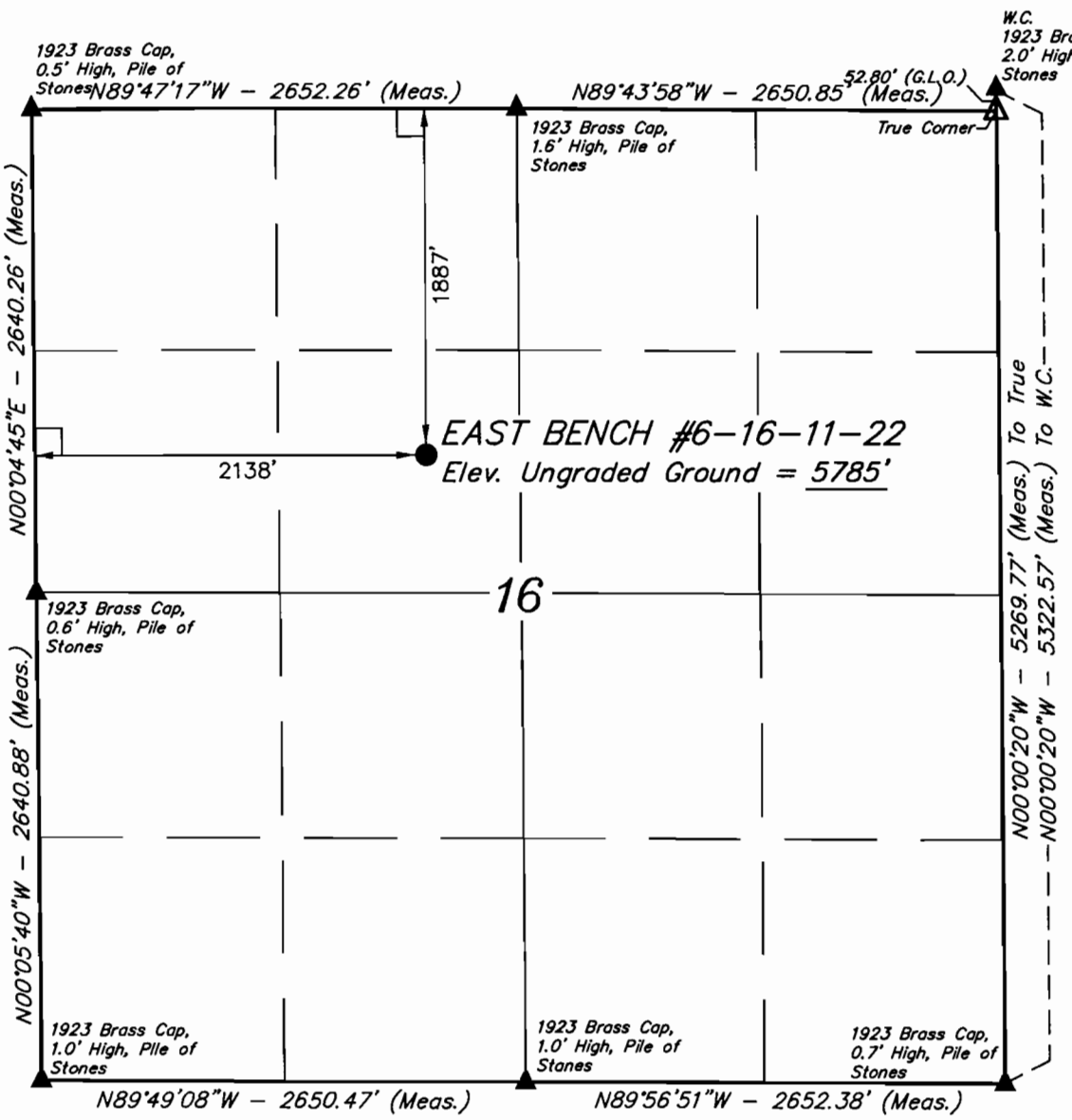
API NUMBER ASSIGNED: 43-047-37124

APPROVAL:

RECEIVED
SEP 09 2005
DIV. OF OIL, GAS & MINING

(11/2001) (See Instructions on Reverse Side)

T11S, R22E, S.L.B.&M.



BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

(NAD 83)
LATITUDE = 39°51'45.54" (39.862650)
LONGITUDE = 109°27'42.71" (109.461864)
(NAD 27)
LATITUDE = 39°51'45.66" (39.862683)
LONGITUDE = 109°27'40.26" (109.461183)

LEGEND:

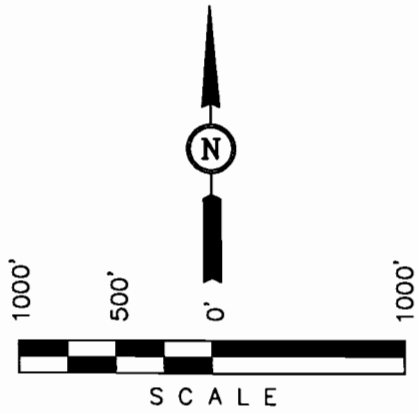
└ = 90° SYMBOL
● = PROPOSED WELL HEAD.
▲ = SECTION CORNERS LOCATED.

THE HOUSTON EXPLORATION COMPANY

Well location, EAST BENCH #6–16–11–22, located as shown in the SE 1/4 NW 1/4 of Section 16, T11S, R22E, S.L.B.&M. Uintah County, Utah.

BASIS OF ELEVATION

TWO WATER TRIANGULATION STATION LOCATED IN THE NW 1/4 OF SECTION 1, T10S, R21E, S.L.B.&M. TAKEN FROM THE BIG PACK MTN NE QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5238 FEET.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST – VERNAL, UTAH 84078
(435) 789–1017

SCALE 1" = 1000'	DATE SURVEYED: 06–02–05	DATE DRAWN: 06–07–05
PARTY N.H. D.M. L.K.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE THE HOUSTON EXPLORATION COMPANY	

Ten Point Plan

The Houston Exploration Company

East Bench #6-16-11-22

Surface Location SE ¼ NW ¼, Section 16, T. 11S., R. 22E.

1. Surface Formation

Green River

2. Estimated Formation Tops and Datum:

Formation	Depth	Datum
Green River	Surface	+5,782' G.L.
Uteland Butte Limestone	3,679	+2,103'
Wasatch	3,794	+1,988'
Mesaverda	6,194	-412'
Buck Tounge	8,394	-2,612'
Castlegate	8,454	-2,672'
TD	8,425	-2,643'

A 11" hole will be drilled to 2,000' +/-. The hole depth will depend on the depth that the Birds Nest Zone is encountered. The hole will be drilled 400' beyond the top of the Birds Nest.

3. Producing Formation Depth:

Formation objective includes the Green River, Wasatch, Mesaverde and its sub-members.

Off Set Well information
Permitted/Drilled:

East Bench 2-16-11-22	East Bench 11-16-11-22
East Bench 4-16-11-22	East Bench 12-16-11-22
East Bench 5-16-11-22	East Bench 13-16-11-22
East Bench 8-16-11-22	East Bench 14-16-11-22
East Bench 9-16-11-22	East Bench 16-16-11-22

Producing Well:
SL #23-16

4. Proposed Casing:

Hole Size	Casing Size	Weight/FT	Grade	Coupling & Tread	Casing Depth	New/Used
11	8 5/8	36#	J-55	STC	2000	NEW
7 7/8	4 ½	11.6#	N-80	LTC	T.D.	NEW

Cement Program:

The Surface Casing will be cemented to the Surface as follows:

	Casing Size	Cement Type	Cement Amounts	Cement Yield	Cement Weight
Lead:	8 5/8	Premium Lite II .05#/sk Static Free .25#/sk Cello Flake 5#/sk KOL Seal .002 gps FP-6L 10% Bentonite .5% Sodium Metasilicate 3% Potassium Chloride	250 sks. +/-	3.38ft³/sk	11.0 ppg
Tail:	8 5/8	Class "G" 2% Calcium Chloride .25#/sk Cello Flake	329 sks. +/-	1.2ft³/sk	15.6 ppg
Top Job:	8 5/8	4% Calcium Chloride .25#/sk Cello Flake	200 sks. +/-	1.10ft³/sk	15.6 ppg

Production casing will be cemented to 2,500' or higher as follows:

	Casing Size	Cement Type	Cement Amounts	Cement Yield	Cement Weight
Lead:	4 1/2	Premium Lite II .25#/sk Cello Flake .05#/sk Static Free 5#/sk Kol Seal 3% Potassium Chloride .055 gps FP-6L 10% Bentonite .5 Sodium Metasilicate	200 sks +/-	3.3ft³/sk	11.0 ppg
Tail:	4 1/2	Class "G" .05% Static Free 2 Sodium Chloride .1% R-3 2% Bentonite	400 sks +/-	1.56ft³/sk	14.3 ppg

5. BOP and Pressure Containment Data:

The anticipated bottom hole pressure will be less than 3000 psi.

A 3000-psi WP BOP system as described in the BOP and Pressure Containment Data (attached) will be installed and maintained from the 8 5/8" surface casing. The BOP system including the casing will be pressure tested to minimum standards set forth in "On Shore Order #2". The BOP will be mechanically checked daily during the drilling operation.

6. Mud Program:

Interval	Mud weight lbs./gal.	Viscosity Sec./OT.	Fluid Loss Ml/30 Mins.	Mud Type
0-2000	Air/Clear Water	------	No Control	Water/Gel
2000-T.D.	8.4-12.0	30	8-10	Water/Gel

7. Auxiliary Equipment

Upper Kelly cock, full opening stabbing valve, 2 ½" choke manifold and pit level indicator.

8. Testing, Coring, Sampling and Logging:

a) Test: None are anticipated.

b) Coring: There is the possibility of sidewall coring.

c) Sampling: Every 10' from 2000' to T.D.

d) Logging:

Type	Interval
DLL/SFL W/GR and SP	T.D. to Surf. Csg
FDC/CNL W/GR and CAL	T.D. to Surf. Csg

9. Abnormalities (including sour gas):

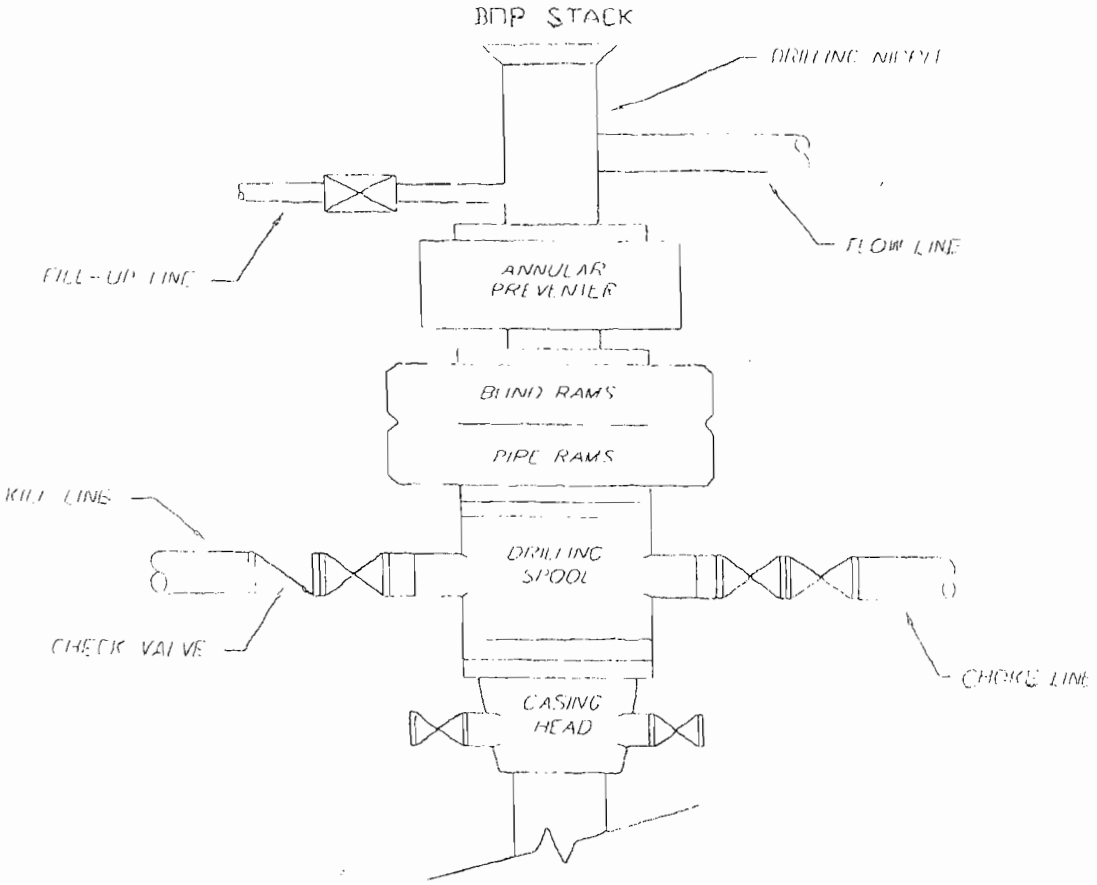
No abnormal pressures, temperatures or other hazards are anticipated. Oil and gas shows are anticipated in the Wasatch Formation. Other wells drilled in the area have not encountered over pressured zones or H2S.

10. Drilling Schedule:

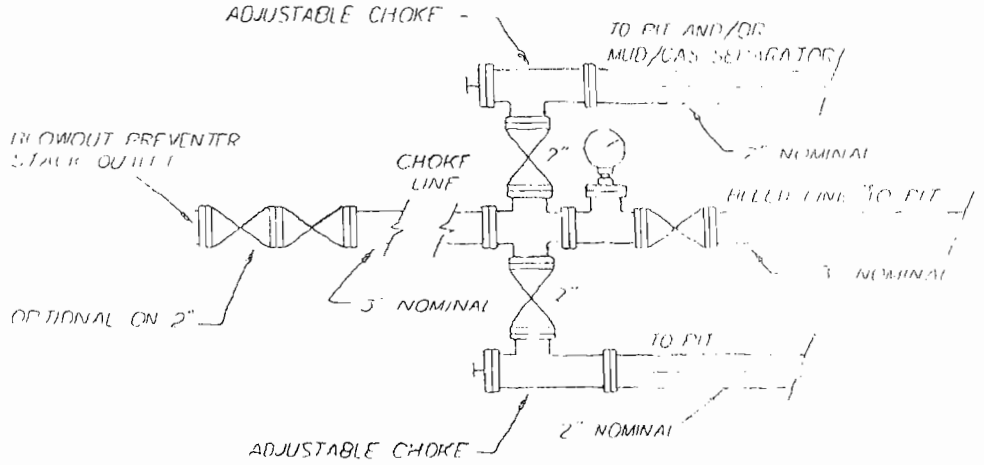
The anticipated starting date is _09/15/05_. Duration of operations is expected to be 30 days.

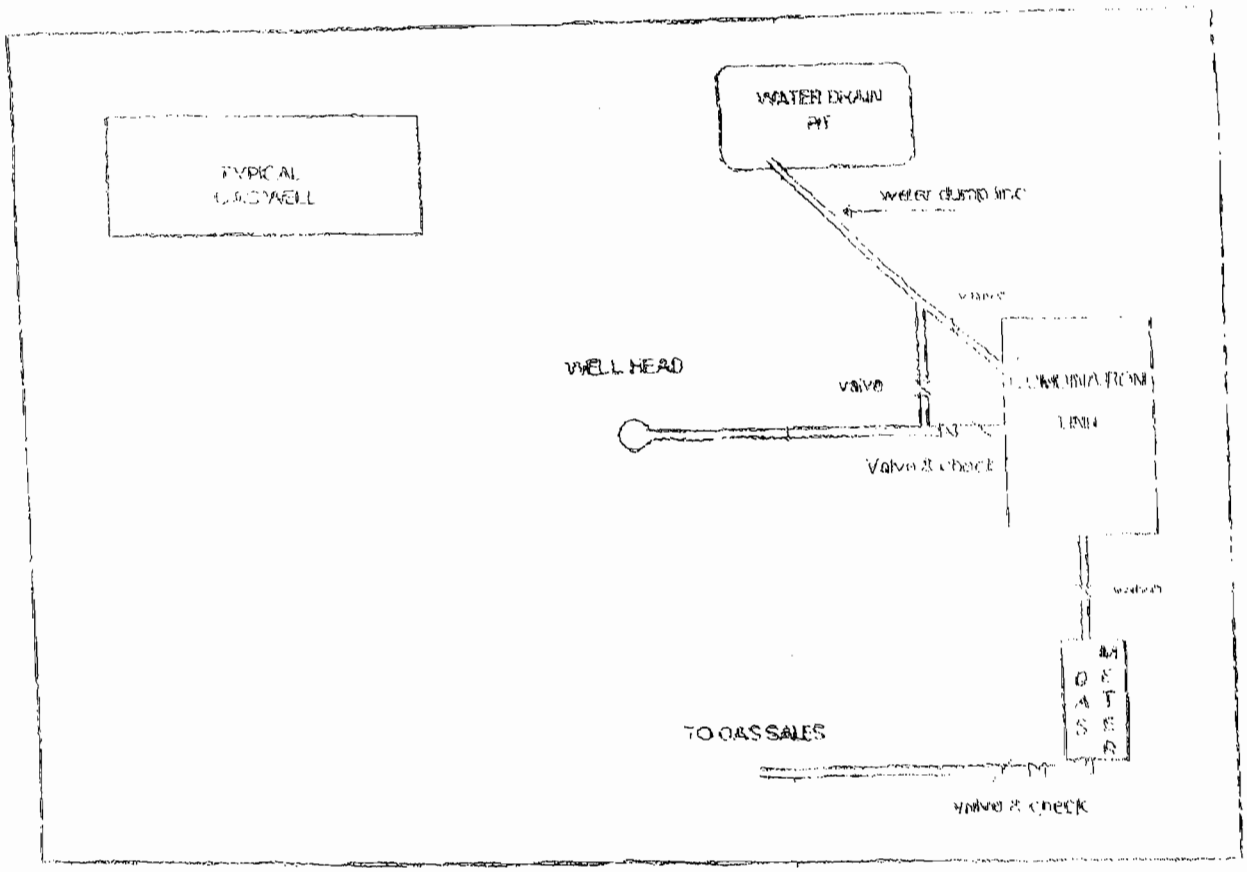
THE HOUSTON EXPLORATION COMPANY

TYPICAL 3,000 p.s.i
BLOWOUT PREVENTER SCHEMATIC



TYPICAL 3,000 p.s.i
CHOKE MANIFOLD SCHEMATIC




TYPICAL
GAS WELL
WATER DRAIN
PIT
WELL HEAD
VALVE
TO GAS SALES

THE HOUSTON EXPLORATION COMPANY

13 POINT SURFACE USE PLAN

FOR WELL

EAST BENCH 6-16-11-22

LOCATED IN SE ¼ NW ¼

SECTION 16, T. 11S, R22E, S.L.B.&M.

UINTAH COUNTY, UTAH

LEASE NUMBER: ML-46911

SURFACE OWNERSHIP: STATE

1. Existing Roads:

To reach The Houston Exploration Co. well East Bench 6-16-11-22 in Section 16, T11S, R 22E, Starting in Vernal, Utah.

Proceed in a westerly direction from Vernal, UT along US Highway 40 approximately 14.0 miles to the junction of State Hwy 88; exit left and proceed in a southerly direction approximately 17.0 miles to Ouray, UT; proceed in a southerly, then southeasterly direction approximately 11.2 miles on the Seep Ridge Road to the junction of this road and an existing road to the southeast; turn left and proceed in a southeasterly direction approximately 9.2 miles to the junction of this road and an existing road to the southeast; turn right and proceed in a southerly direction approximately 4.9 miles to the junction of this road and an existing road to the northwest; turn right and proceed in a northwesterly, then southwesterly direction approximately 0.4 miles to the beginning of the proposed access road for the 3-16-11-22 to the north; follow road flags in a northerly, then northeasterly, then northwesterly direction approximately 0.2 miles to the beginning of the proposed access road to the southwest; follow road flags in a southwesterly direction approximately 0.1 miles to the proposed location.

Total distance from Vernal, Utah to the proposed well location is approximately 57.0 miles.

All existing roads to the proposed location are State of Utah, BLM maintained or County Class D roads. Please see the attached map for additional details.

2. Planned access road

The proposed access road will be approximately 528' +/- of new construction on lease. The road will be graded once per year minimum and maintained.

A) Approximate length	**528 ft**
B) Right of Way width	**30 ft**
C) Running surface	**18 ft**
D) Surface material	**Native soil**
E) Maximum grade	**5%**
F) Fence crossing	**None**
G) Culvert	**None**
H) Turnouts	**None**
I) Major cuts and fills	**None**
J) Road Flagged	**Yes**
K) Access road surface ownership	**State**
L) All new construction on lease	**Yes**
M) Pipe line crossing	**None**

Please see the attached location plat for additional details.

An off lease right-of-way will not be required.

All surface disturbances for the road and location will be within the lease boundary.

3. Location of existing wells

The following wells are located within a one-mile radius of the location site.

A) Producing well
SL 23-16
B) Water well **None**
C) Abandoned well **None**
D) Temp. abandoned well **None**
E) Disposal well **None**
F) Drilling /Permitted well
East Bench 2-16-11-22
East Bench 11-16-11-22
East Bench 4-16-11-22
East Bench 12-16-11-22
East Bench 5-16-11-22
East Bench 13-16-11-22
East Bench 8-16-11-22
East Bench 14-16-11-22
East Bench 9-16-11-22
East Bench 16-16-11-22
G) Shut in wells **None**
H) Injection well **None**
I) Monitoring or observation well **None**

Please see the attached map for additional details.

4. Location of tank batteries, production facilities and production gathering service lines.

All production facilities are to be contained within the proposed location site. Please see the attached plat plan for a typical gas well separator installation and well site piping.

All permanent (on site for more than six months or longer) structures constructed or installed will be painted an **Olive Black** color. Facilities required to comply with O.S.H.A. (Occupational Safety and Health Act) will be excluded. The required paint color is **Olive Black.**

All tanks will be surrounded by a dike of sufficient capacity to contain the storage capacity of the largest tank in the battery. The integrity of the dike will be maintained.

The operator will adhere to all site security guidelines and regulation identified in 43 cfr 3126.7.

All off lease storage, off lease measurement, commingling on lease or off lease, of production, will have prior written approval form the authorized officer.

If the well is capable of economic production a surface gas line will be required.

Approximately 1,615' +/- of 3" steel surface gas gathering line would be constructed on State Lands. The line will tie into the proposed pipeline for the #14-16-11-22 in Section 16, T11S, R22E. The pipeline would be strung and boomed to the northeast and south of the location and the south and west of the access road. The pipeline may be buried as determined by the Authorized Officer at the onsite.

An off lease right-of-way will not be required.

Please see the attached location diagrams for pipeline location.

The gas meter run will be located within 500' of the wellhead. The gas line will be buried or anchored down from the wellhead to the meter.

Meter runs will be housed and/or fenced.

The gas meter will be calibrated and the tank strapped in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three months on new meter installations and at least quarterly thereafter. The authorized officer will be provided with a date and time for the initial meter calibration and all future meter-proving schedules. A copy of the meter calibration report will be submitted to the BLM's Vernal District office and State of Utah, Division of Oil, Gas, and Mining. All measurement facilities will conform to API (American Petroleum Institute) and AGA (American Gas Association) standards for gas and liquid hydrocarbon measurement.

5. Location and type of water supply

Water for drilling and cementing will come from Bitter Creek in Permit # T-75377.

6. Source of construction materials

All construction material for this location site and access road shall be borrow material accumulated during construction of the location site and access road. Additional road gravel or pit lining material will be obtained from private resources.

7. Methods for handling waste disposal

A) Pit construction and liners:

The reserve pit will be approximately **12 ft.** deep and most of the depth shall be below the surface of the existing ground Please see the attached plat for details.

The reserve pit will be lined.

The reserve pit will be used to store water for drilling. A semi-closed system will be used to drill the well. All fresh water for drilling will come from a frac tank placed on location and from the rig tank. The pit will be used to hold non-flammable materials such as cuttings, salt, drilling fluids, chemicals, produced fluids, etc.

B) Produced fluids:

Produced water will be confined to the reserve pit, or if deemed necessary, a storage tank for a period not to exceed 90 days after initial production. During the 90-day period an application for approval for permanent disposal method and location will be submitted to the authorized officer. **Evaporation may be used instead of trucking to facilitate closing and reclamation of the reserve pit. A pumping system would be used for evaporation.**

C) Garbage:

A trash cage fabricated from expanded metal will be used to hold trash on location and will be removed to an authorized landfill location.

D) Sewage:

A portable chemical toilet will be supplied for human waste.

E) Site clean-up:

After the rig is moved off the location the well site area will be cleaned and all refuse removed.

8. Ancillary facilities

There are no ancillary facilities planned at this time and none are foreseen for the future.

9. Well-site layout

Location dimensions are as follows:

A) Pad length	**345 ft.**
B) Pad width	**245 ft.**
C) Pit depth	**12 ft.**
D) Pit length	**150 ft.**
E) Pit width	**75 ft.**
F) Max cut	**18.8 ft.**
G) Max fill	**6.5 ft.**
H) Total cut yds.	**8,350 cu yds**
I) Pit location	**southeast side**
J) Top soil location	**north end**
K) Access road location	**east end**
L) Flare Pit	**corner C**

Please see the attached location diagram for additional details.

All pits will be fenced according to the following minimum standards:

A) Thirty nine inch net wire shall be used with at least one strand of wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.

B) The net wire shall be no more than 2 inches above the ground. The barbed wire shall be 3 inches above the net wire. Total height of the fence shall be at leas 42 inches.

C) Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.

D) Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than 16 ft.

E) All wire shall be stretched by using a stretching device before it is attached to the corner posts.

10. Plans for restoration of the surface

Prior to construction of the location, the top 6 inches of soil material will be stripped off the location and the pit area. The topsoil removed and piled will amount to approximately **1,690** cubic yards of material. Topsoil will be stockpiled in one distinct pile. Placement of the topsoil is noted on the attached location plat. The topsoil pile from the location will be seeded as soon as the soil is stock piled with the seed mix listed. When all drilling and completion activities have been completed and the pit back-filled the topsoil from the pit area will be

spread on the pit area. The pit area will be seeded when the soil has been spread. The unused portion of the location (the area outside the dead men) will be re-contoured.

The dirt contractor will be provided with an approved copy of the surface use plan prior to construction activities.

Changes to the drainage during the construction activities shall be restored to its original line of flow or as near as possible when the pit is back-filled

All disturbed areas will be re-contoured to the approximate natural contours. Prior to back filling the pit the fences around the reserve pit will be removed.

The reserve pit will be reclaimed within 90 days of well completion. If the reserve pit has not dried sufficiently to allow back filling, an extension on the time requirement for back filling the pit will be requested. Once reclamation activities have begun, they shall be completed within 30 days.

After the reserve pit has been reclaimed, no depressions in the soil covering the reserve pit will be allowed. The objective is to keep seasonal rainfall and run off from seeping into the soil used to cover the reserve pit. Diversion ditches and water bars will be used to divert the run off as needed.

When restoration activities have been completed, the location site and new access road cuts and shoulders shall be reseeded. Prior to reseeding, all disturbed areas will be scarified and left with a rough surface.

A) Seeding dates:

Seed will be spread when topsoil is stock piled and when reclamation work is performed.

The seed mix and quantity list will be used whether the seed is broadcast or drilled.

B) Seed Mix

To be determined by the Authorized Officer.

11. Surface ownership:

Access road	**State**
Location	**State**
Pipe line	**State**

12. Other information:

A) Vegetation

The vegetation coverage is Slight. The majority of the existing vegetation consists of non-native species. Rabbit brush, bitter brush, and Indian Rice grass and Sagebrush are also found on the location.

B) Dwellings:

There are no dwelling or other facilities within a one-mile radius of the location.

C) Archeology:

The location has been surveyed. A copy of that survey will be forwarded to your office.

If, during operations, any archaeological or historical sites, or any objects of antiquity (subject to the antiquities act of June 8, 1906) are discovered, all operations, which would affect such sites, will be suspended and the discovery reported promptly to the surface management agency.

D) Water:

The nearest water is the White River located 8 miles to the Northeast.

E) Chemicals:

No pesticides, herbicides or other possible hazardous chemicals will be used without prior application.

F) Notification:

a) Location Construction
At least forty eight (48) hours prior to construction of location and access roads.
b) Location completion
Prior to moving on the drilling rig.
c) Spud notice
At least twenty-four (24) hours prior to spudding the well.
d) Casing string and cementing
At least twenty-four (24) hours prior to running casing and cementing all casing strings.
e) BOP and related equipment tests
At least twenty-four (24) hours prior to initial pressure tests.
f) First production notice
Within five (5) business days after the new well begins, or production resumes after well has been off production for more than 90 days.

G) Flare pit:

The flare pit will be located in **corner C** of the reserve pit out side the pit fences and 100 feet from the bore hole on the east side of the location. All fluids will be removed from the pit within 48 hours of occurrence.

13. Lessees or Operator's representative and certification

A) Representative

William A. Ryan
Rocky Mountain Consulting
290 S 800 E
Vernal, UT 84078

Office 435-789-0968
Fax 435-789-0970
Cellular 435-828-0968

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws,

regulations, onshore oil and gas orders, and any applicable notices to lessees. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

This drilling permit will be valid for a period of one year from the date of approval. After permit termination, a new application will be filed for approval for any future operations.

Onsite Dates:

B) Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill-site and access route that I am familiar with the conditions which presently exist, that the statements made in this plan are, to the best of my knowledge and belief, true and correct, and that the work associated with the operation proposed herein will be preformed by The Houston Exploration Company and its contractors and subcontractors in conformity with this plan and terms and conditions with this plan and the terms and conditions under which it is approved.

Date 8-30-2005

William A. Ryan, Agent
Rocky Mountain Consulting

Statement of use of Hazardous Materials

No chemical(s) from the EPA's consolidated list of Chemicals subject to Reporting under Title III of the Superfund Amendments and Reauthorization, Act (SARA) of 1986 will be used, produced, transported, stored, disposed, or associated with the proposed action. No extremely hazardous substances, as defined in 40 cfr 355, will be used, produced, stored, transported, disposed, or associated with the proposed action.

If you require additional information please contact:

William A Ryan
Agent for The Houston Exploration Company
Rocky Mountain Consulting
290 S 800 E
Vernal, UT 84078

435-789-0968 Office
435-828-0968 Cell
435-789-0970 Fax

THE HOUSTON EXPLORATION COMPANY

EAST BENCH #6-16-11-22

LOCATED IN UINTAH COUNTY, UTAH
SECTION 16, T11S, R22E, S.L.B.&M.

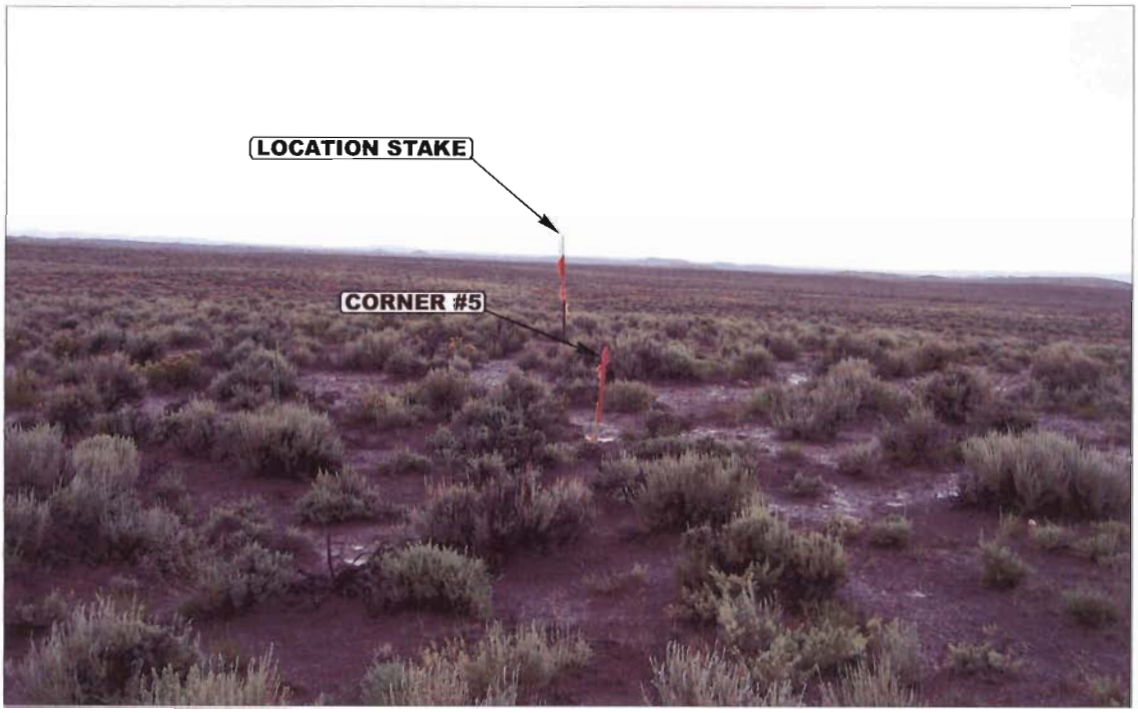


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE **CAMERA ANGLE: NORTHWESTERLY**

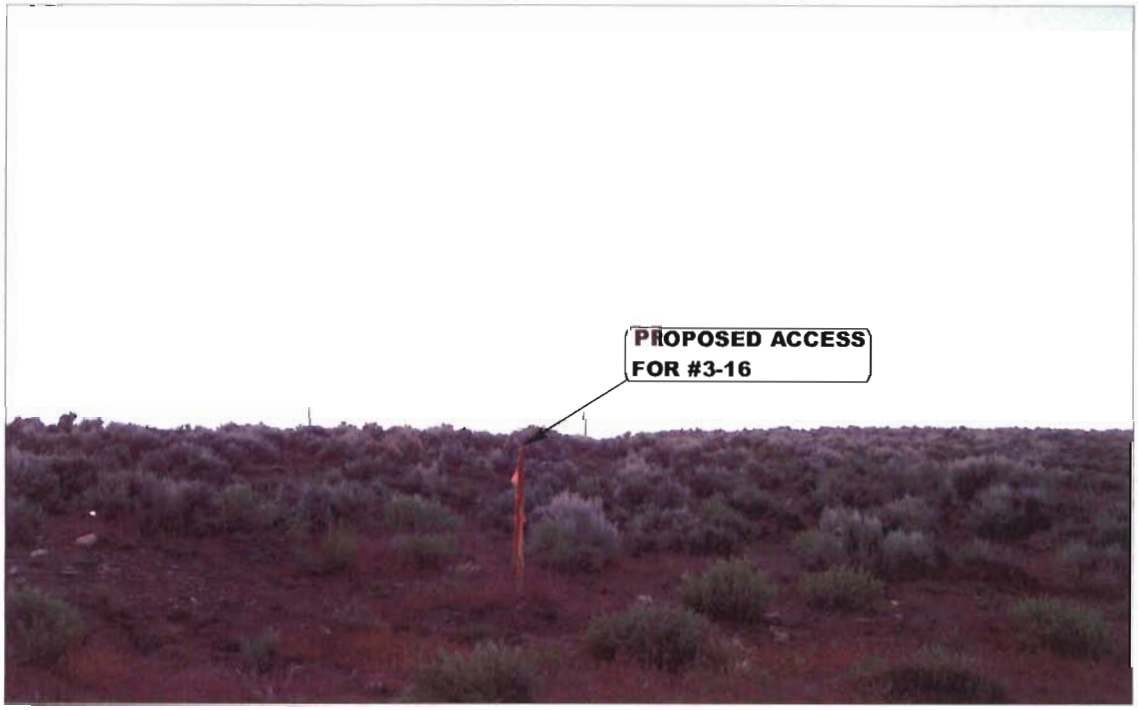


PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS FOR #3-16 **CAMERA ANGLE: NORTHERLY**

- Since 1964 -

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
435-789-1017 uels@uelsinc.com

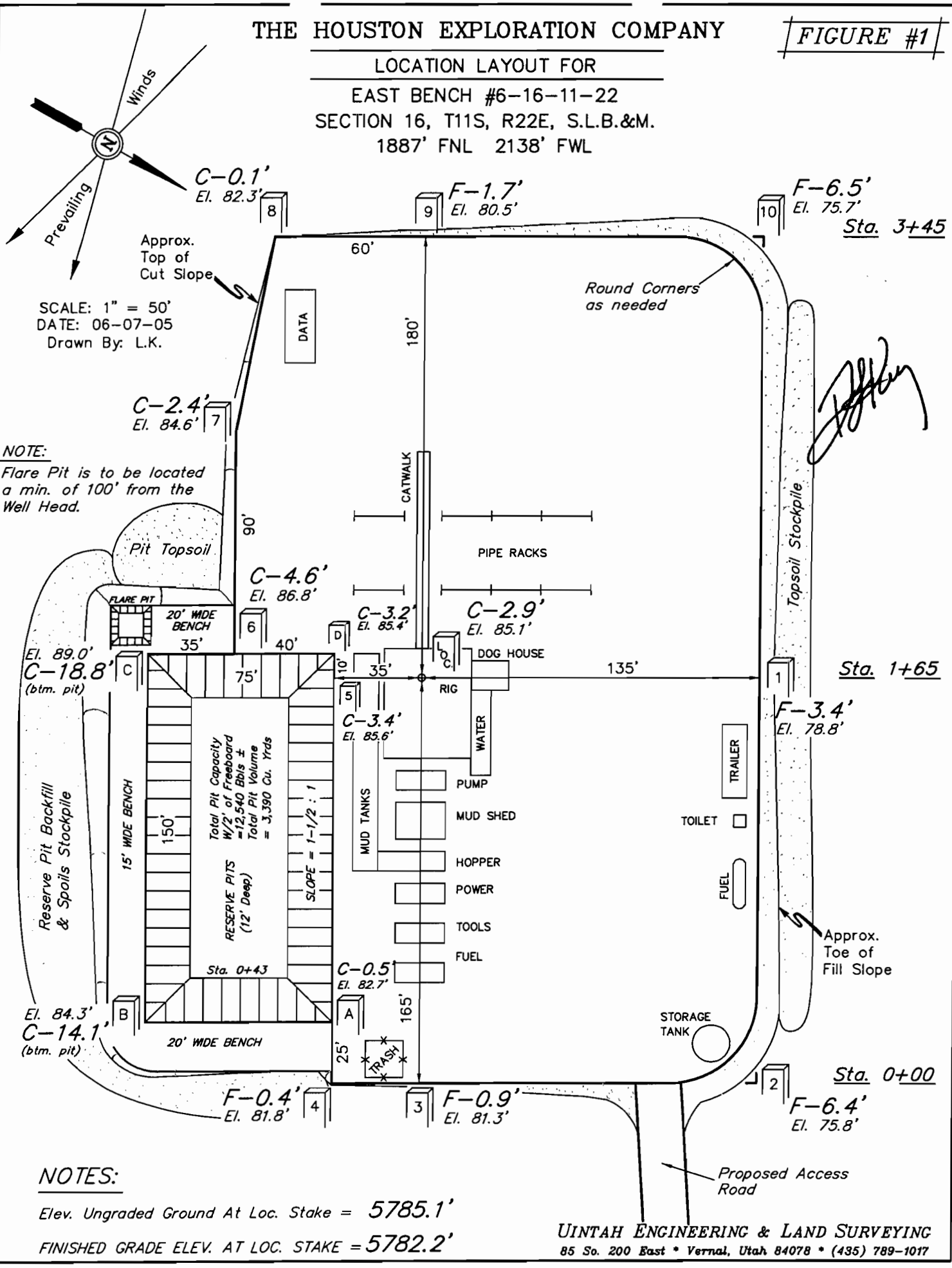
LOCATION PHOTOS	6 MONTH	7 DAY	05 YEAR	PHOTO
TAKEN BY: N.H.	DRAWN BY: J.L.G.	REVISED: 00-00-00		

THE HOUSTON EXPLORATION COMPANY

FIGURE #1

LOCATION LAYOUT FOR

EAST BENCH #6-16-11-22
SECTION 16, T11S, R22E, S.L.B.&M.
1887' FNL 2138' FWL



NOTES:

Elev. Ungraded Ground At Loc. Stake = 5785.1'

FINISHED GRADE ELEV. AT LOC. STAKE = 5782.2'

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

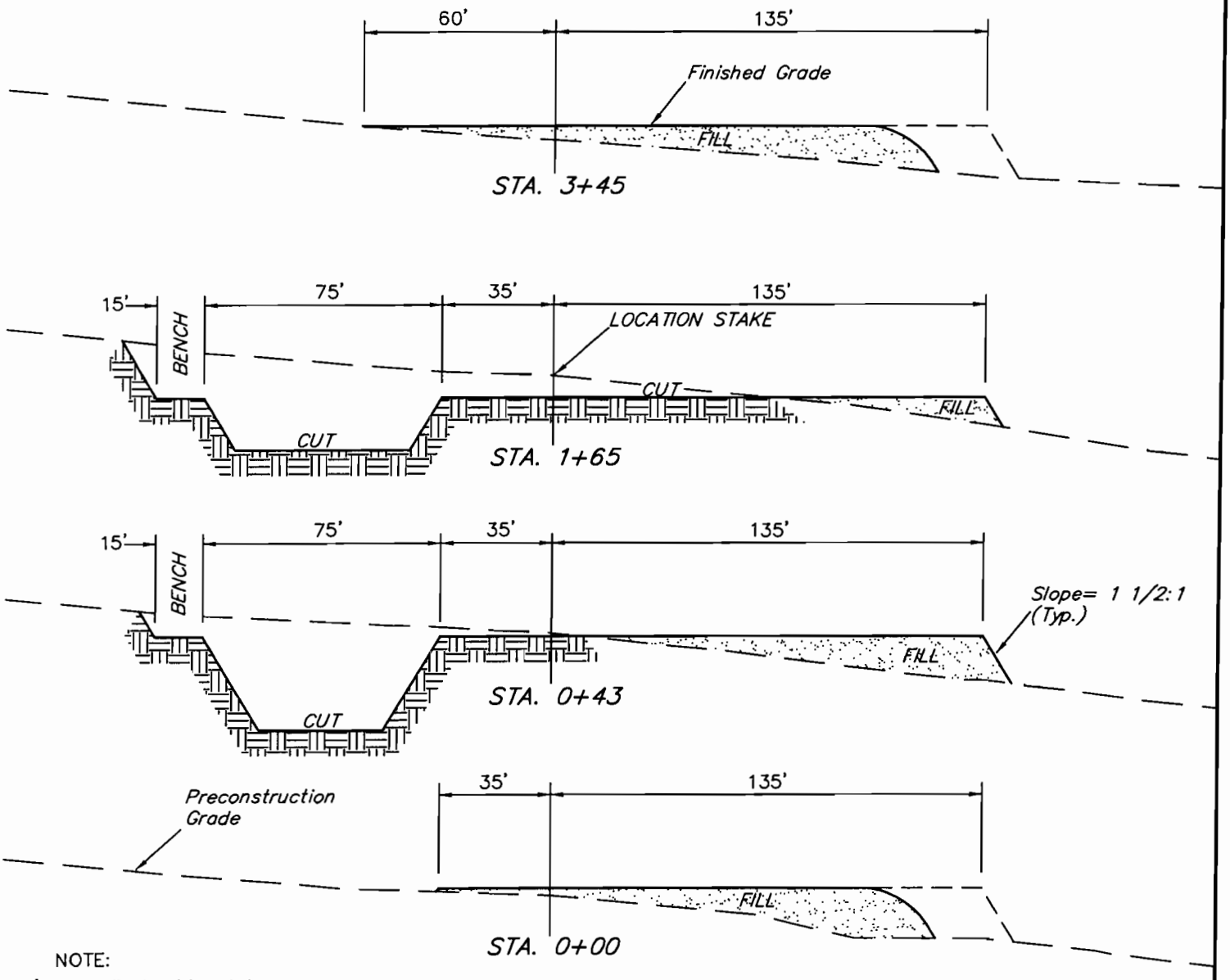
THE HOUSTON EXPLORATION COMPANY

FIGURE #2

TYPICAL CROSS SECTIONS FOR
EAST BENCH #6-16-11-22
SECTION 16, T11S, R22E, S.L.B.&M.
1887' FNL 2138' FWL

1" = 20'
X-Section Scale
1" = 50'

DATE: 06-07-05
Drawn By: L.K.



NOTE:
Topsoil should not be Stripped Below Finished Grade on Substructure Area.

* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

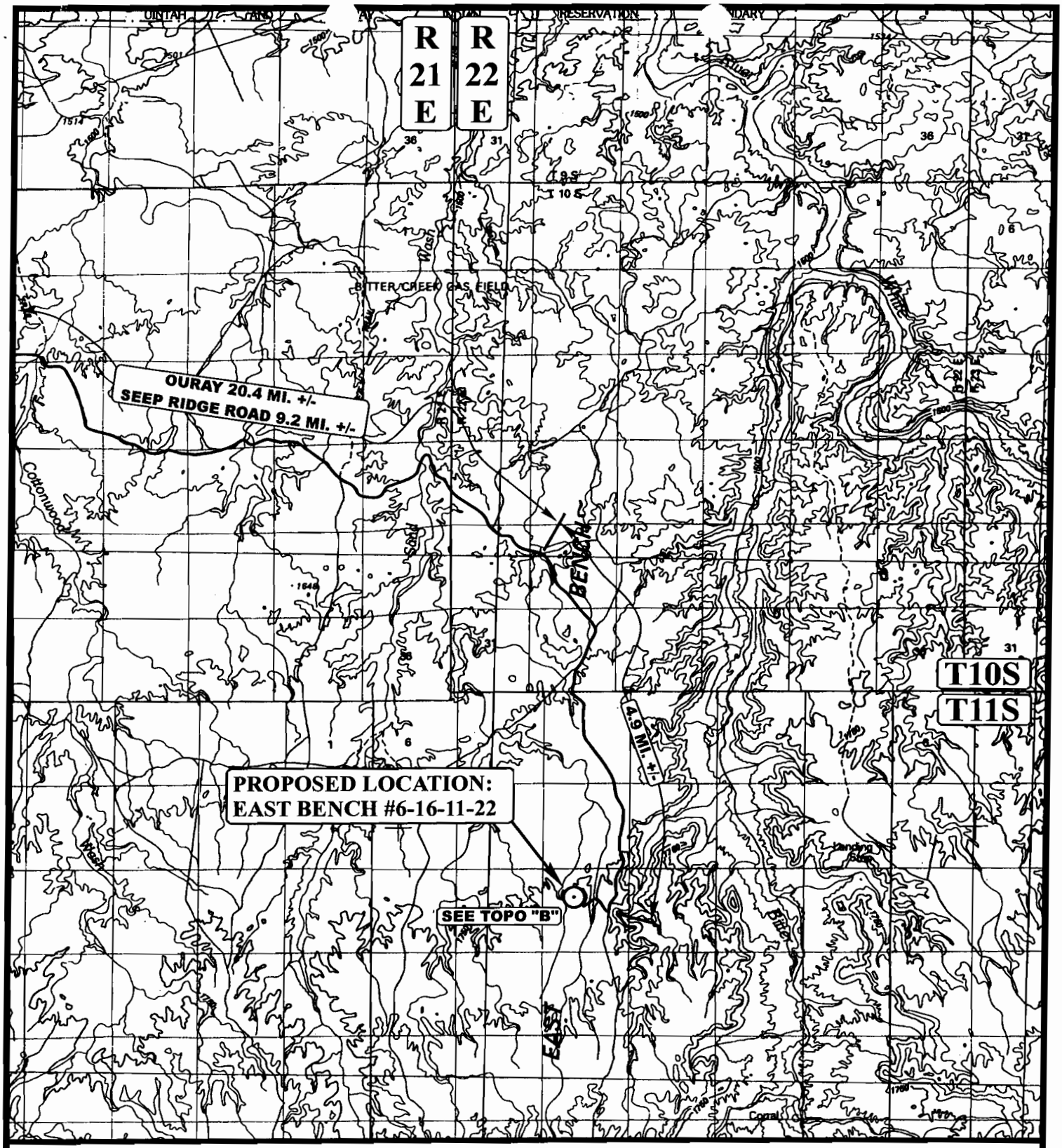
APPROXIMATE YARDAGES

CUT

(6") Topsoil Stripping	=	1,690 Cu. Yds.
Remaining Location	=	6,660 Cu. Yds.
TOTAL CUT	=	8,350 CU.YDS.
FILL	=	4,960 CU.YDS.

EXCESS MATERIAL	=	3,390 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	=	3,390 Cu. Yds.
EXCESS UNBALANCE (After Rehabilitation)	=	0 Cu. Yds.

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017



LEGEND:

⊙ PROPOSED LOCATION

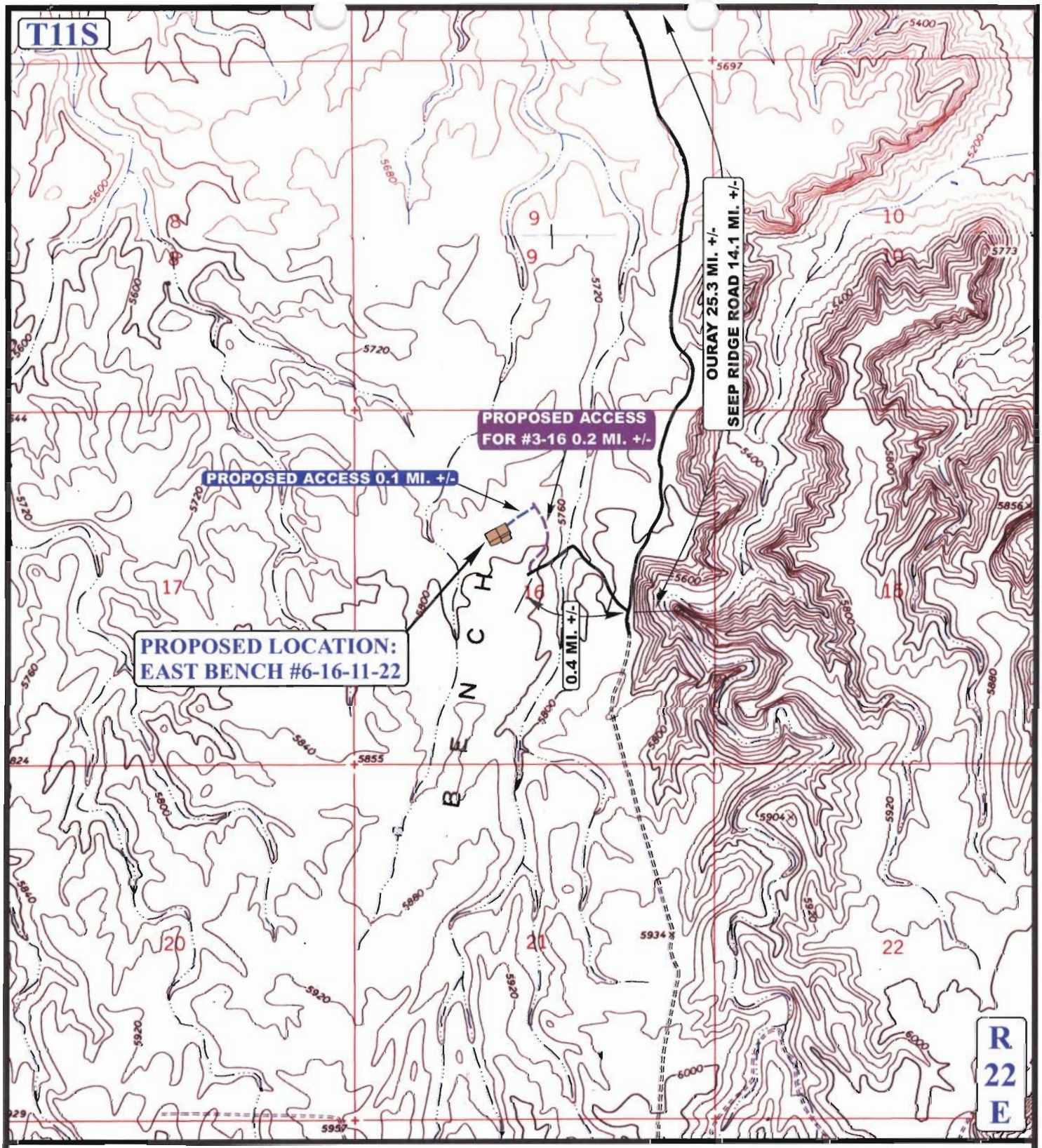
N

THE HOUSTON EXPLORATION COMPANY

EAST BENCH #6-16-11-22
SECTION 16, T11S, R22E, S.L.B.&M.
1887' FNL 2138' FWL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	6 MONTH	7 DAY	05 YEAR	A TOPO
SCALE: 1:100,000	DRAWN BY: J.L.G.	REVISED: 00-00-00		



LEGEND:

EXISTING ROAD

PROPOSED ACCESS ROAD

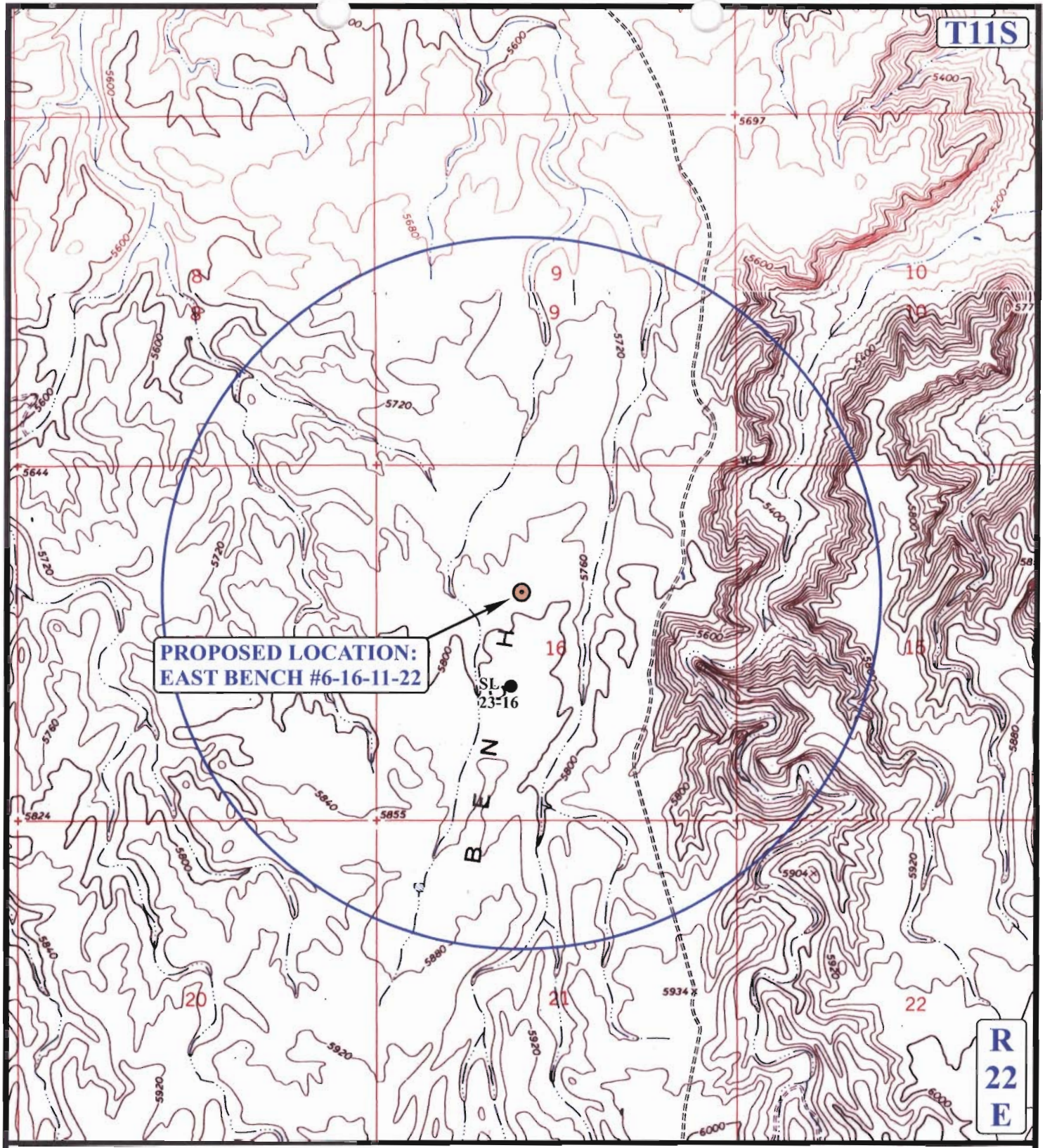
N

THE HOUSTON EXPLORATION COMPANY

EAST BENCH #6-16-11-22
SECTION 16, T11S, R22E, S.L.B.&M.
1887' FNL 2138' FWL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	6 MONTH	7 DAY	05 YEAR	B TOPO
SCALE: 1" = 2000'	DRAWN BY: J.L.G.	REVISED: 00-00-00		



LEGEND:

- DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

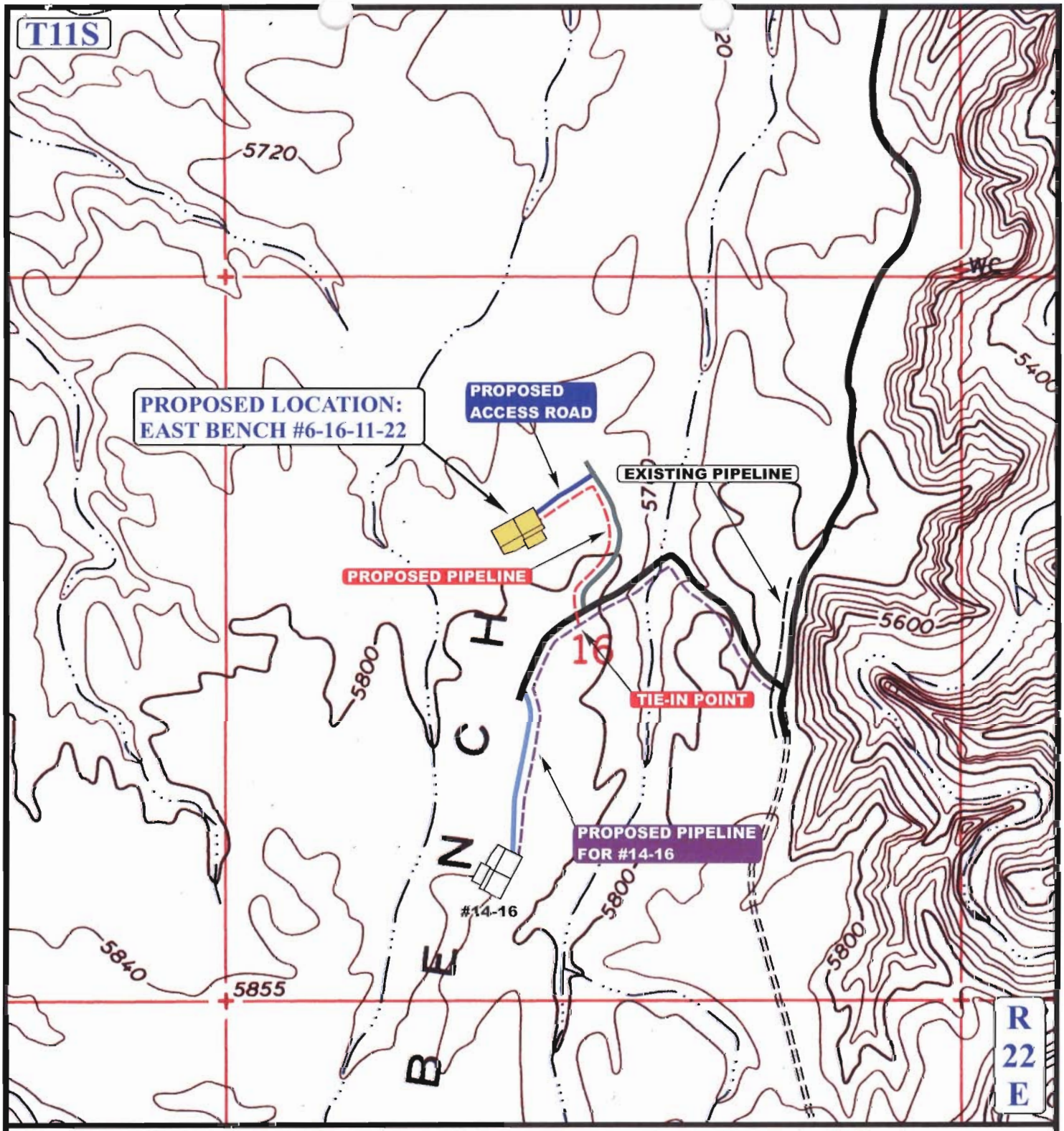
N

THE HOUSTON EXPLORATION COMPANY

EAST BENCH #6-16-11-22
SECTION 16, T11S, R22E, S.L.B.&M.
1887' FNL 2138' FWL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	6 MONTH	7 DAY	05 YEAR	C TOPO
SCALE: 1" = 2000'	DRAWN BY: J.L.G.	REVISED: 00-00-00		



APPROXIMATE TOTAL PIPELINE DISTANCE = 1,615' +/-

LEGEND:

EXISTING PIPELINE

PROPOSED PIPELINE

PROPOSED ACCESS

N

THE HOUSTON EXPLORATION COMPANY

EAST BENCH #6-16-11-22
SECTION 16, T11S, R22E, S.L.B.&M.
1887' FNL 2138' FWL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	6 MONTH	7 DAY	05 YEAR	D TOPO
SCALE: 1" = 1000'	DRAWN BY: J.L.G.	REVISED: 00-00-00		